Paper Circuit Pop Up Flower Card

Use these templates to build a pop up paper circuit card with a light up lotus design . The pop up flower is a design by Robert Saluda, adapted for use with paper circuits. Find the original project at this link: http://wp.robertsabuda.com/pop-make-mothers-day-flower

Notes:
** These templates work best when printed on cardstock.*
** Using a piece of vellum or rice paper for the flower pieces creates a nice effect to diffuse the LED.*
** To make the project easier to assemble, fold along the center of the cards before attaching any electronics or pop up pieces.*

Materials Needed:

3mm LED

LilyPad Button Board

12mm Coin Cell Battery (CR1225)

Glue

5mm Copper Tape (~12 inches)

Clear Tape

Tools Needed:

Needle Nose Pliers

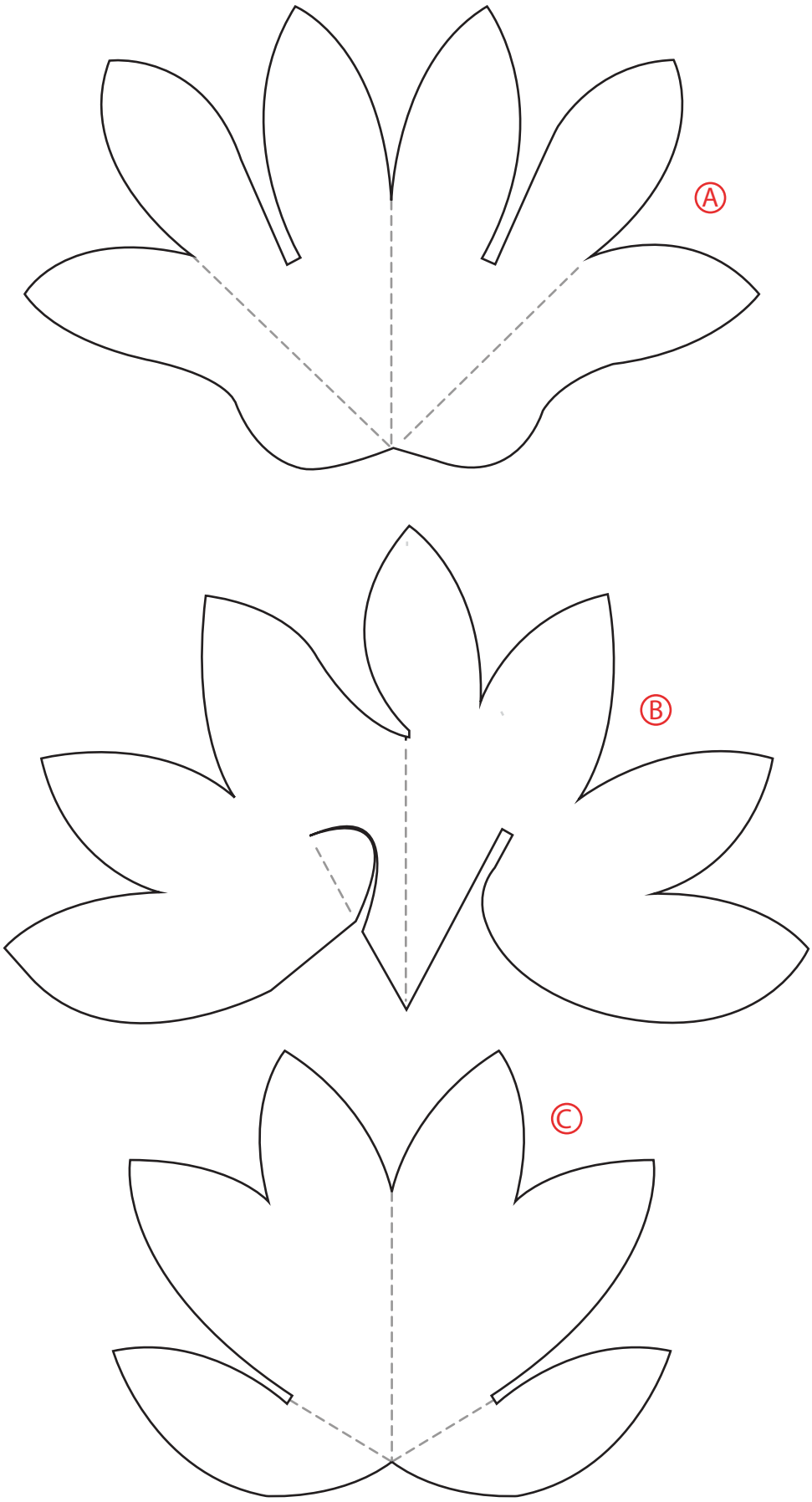
Hobby Knife

Optional Materials:

* Glitter/Paints/Decorative Supplies/Stickers
* Vellum/Rice/Origami Paper
* Envelope *(if mailing your card, use Parcel Post service so the LED doesn't get crushed by sorting machines)*

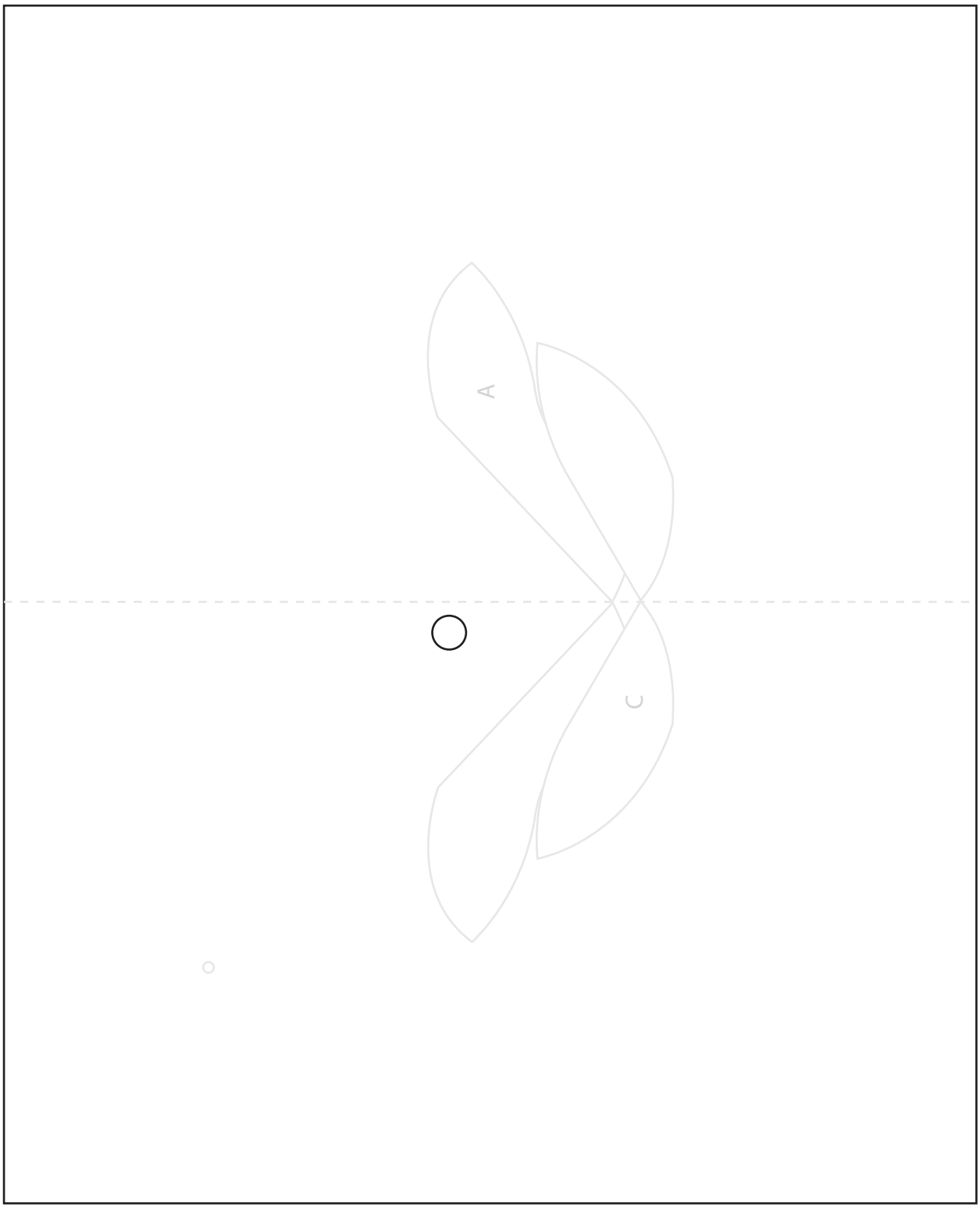
Optional:

Ruler/Bone Folder



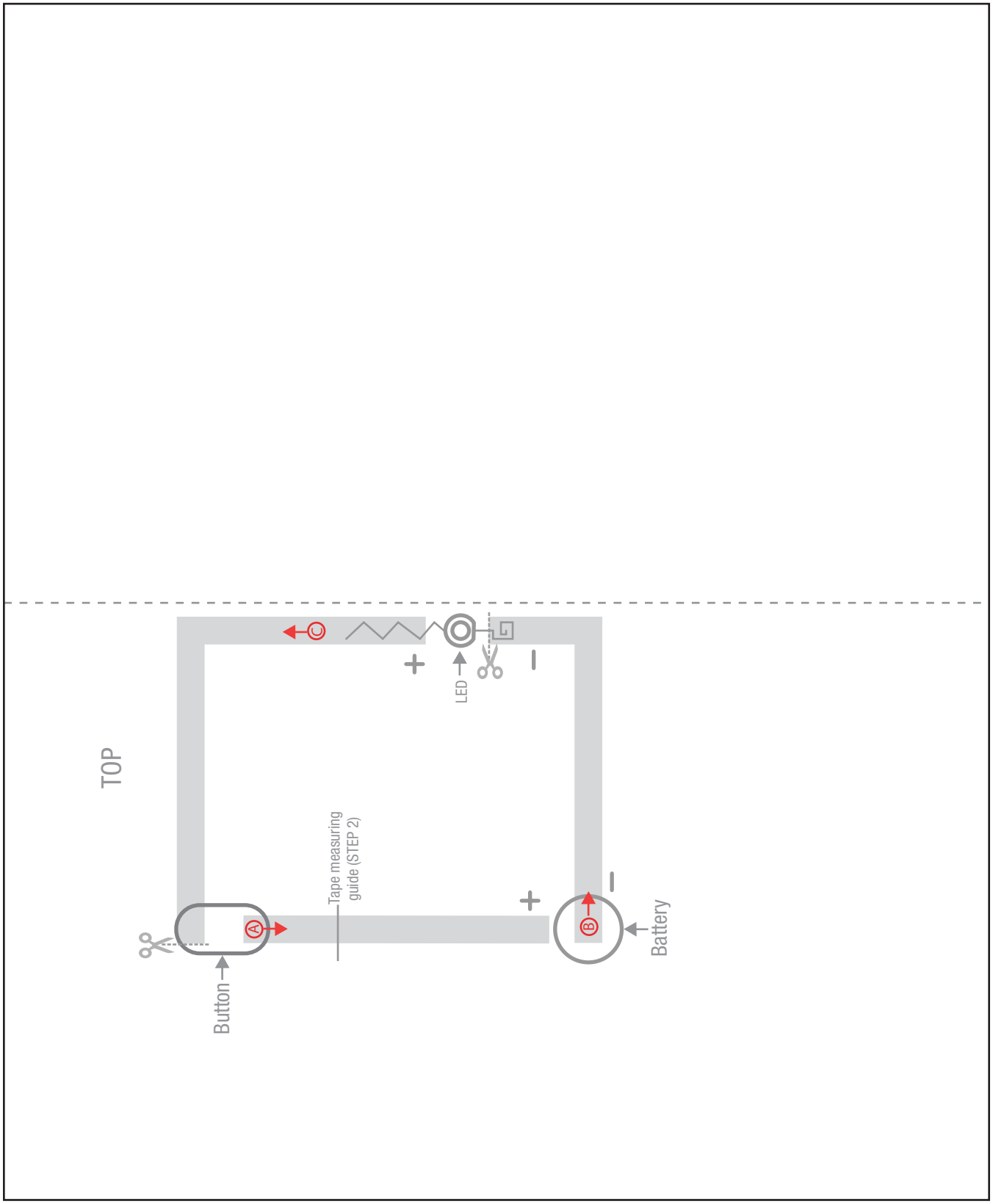
—— CUT - - - FOLD

This template is an adaptation this design from Robert Saluda: *http://wp.robertsabuda.com/pop-make-mothers-day-flower*
Please refer to the above link for detailed folding and cutting instructions.



CUT GUIDE FOLD

This template is an adaptation this design from Robert Saluda: *http://wp.robertsabuda.com/pop-make-mothers-day-flower*
Please refer to the above link for detailed folding and cutting instructions.

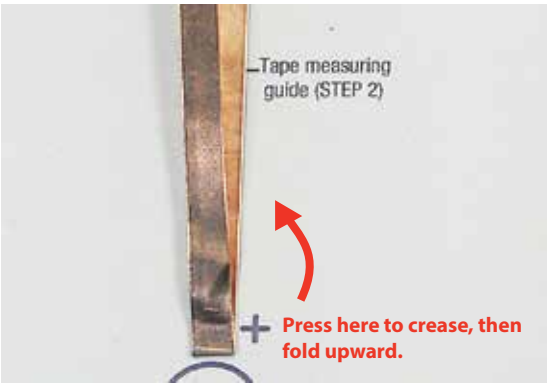


CUT FOLD DISCARD BUTTON

COPPER TAPE LED BATTERY

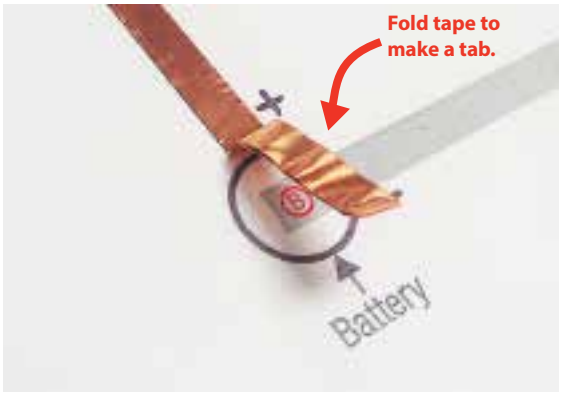
Paper Circuit Pop Up Flower Card Instructions

STEP 1.



Peel the backing from the copper tape and press down along the gray line marked Ⓐ. When you reach the end of the line, fold the tape upward to make a crease.

STEP 2.

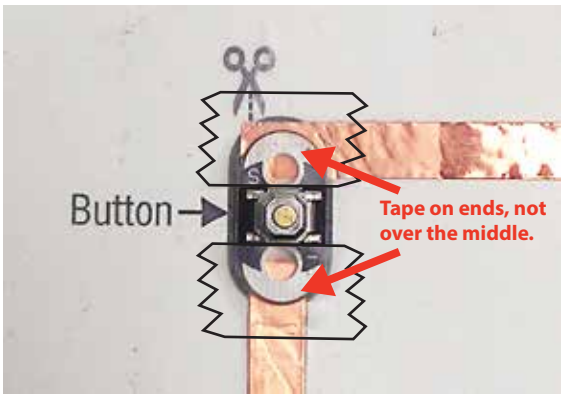


Cut tape using the black line (between the button and battery labels) as a guide. Fold tape on itself (sticky side to sticky side). This will hold the battery.

STEP 3.

Follow Ⓑ line. At the corner, fold tape backwards and make a crease. Carefully turn around the corner, it will start to make a fold. Continue to the scissors mark and cut. Repeat for Ⓒ line.

STEP 4.



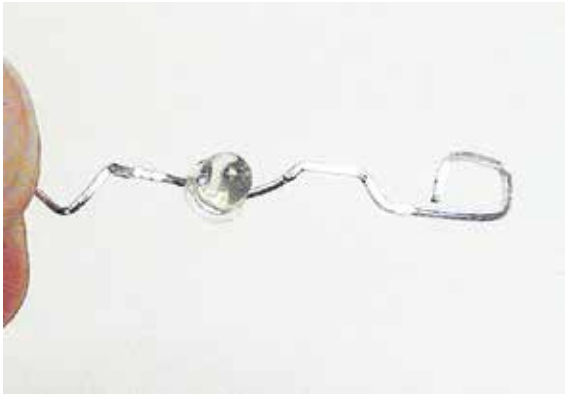
When all copper tape lines are finished, tape over the button with clear tape to hold it down to the copper tape. Be careful not to cover the part of the button where you press.

Paper Circuit Pop Up Flower Card Instructions

STEP 5.

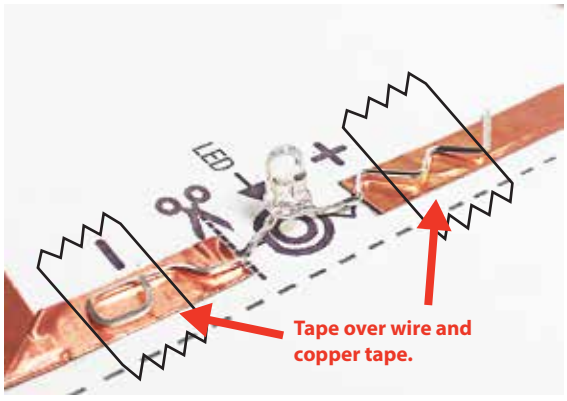
Find the longer wire on the LED, this is the positive side. Use pliers to bend the wire into a zig zag shape.

STEP 6.



Bend a square shape on the other wire. This will help tell which side is positive and negative without having to measure wires.

STEP 7.



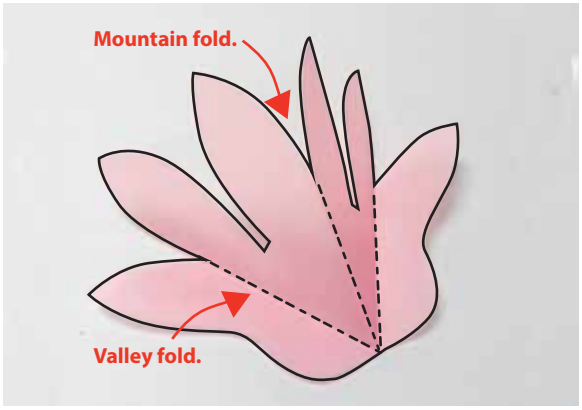
Place the zig zag end down on the + tape line and the square end on the -. Make sure the wires are flat against the copper and tape over them with clear tape.

STEP 8.

Place the battery underneath the tab and tape down. Make sure that no tape is in between the copper tape and the battery. Press the button and test your circuit!

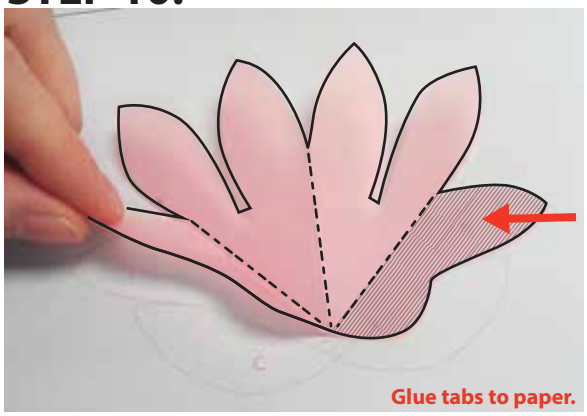
Paper Circuit Pop Up Flower Card Instructions

STEP 9.



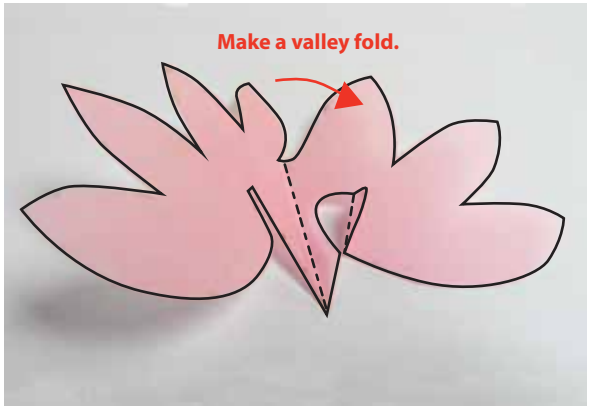
Fold the center of piece Ⓐ so it points toward you (mountain fold). Fold the side petals in the opposite direction (valley fold).

STEP 10.



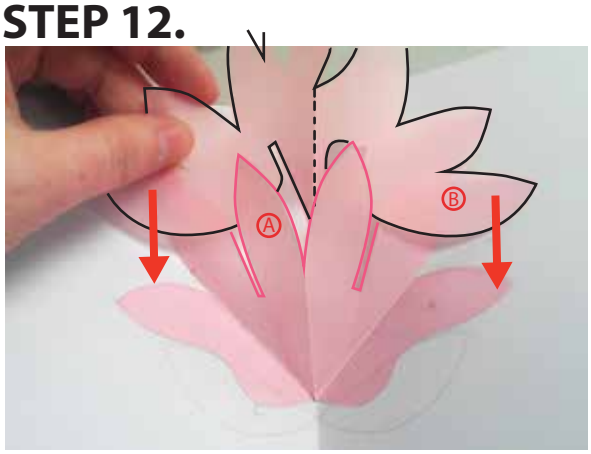
Match the petals with the shapes marked Ⓐ on the template and glue down.

STEP 11.



Hold piece Ⓑ so that the tab is on the right. Fold the sides together and the tab up as shown.

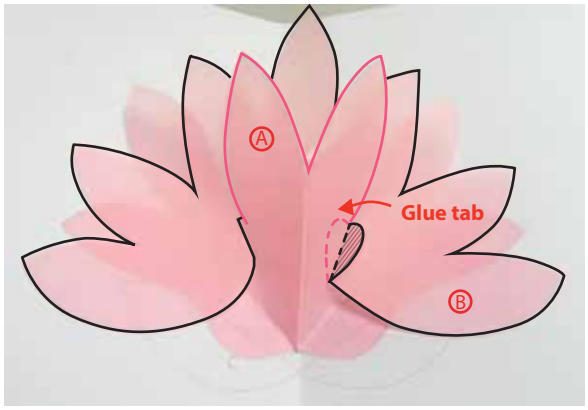
STEP 12.



Slide piece Ⓑ behind the center petals on piece Ⓐ.

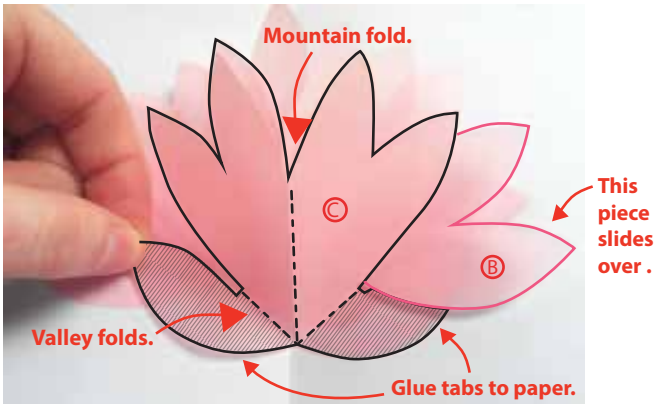
Paper Circuit Pop Up Flower Card Instructions

STEP 13.



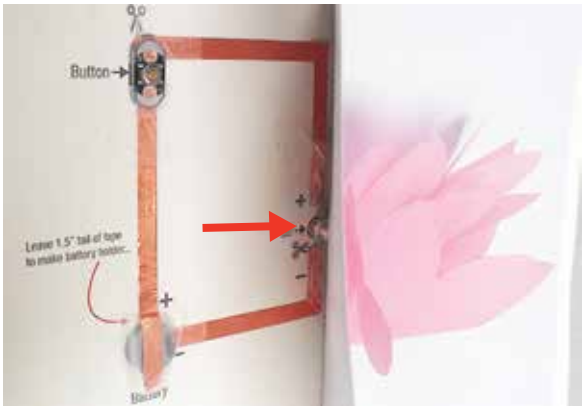
Glue the tab on piece Ⓑ to piece Ⓐ.

STEP 14.



Fold along the lines on piece Ⓒ. Match petals with shapes marked on the template and glue. The outside petals of piece Ⓑ rest over the glued down petals.

STEP 15.



Place the finished card over the paper circuit and cut a hole for the LED to push through. Carefully fold the card shut to make sure the pop up folds flat.

STEP 16.

Press on the paper to find where the button is and use a sticker to mark it. Tape down the corners of the top and bottom cards to hide the electronics.